Before the
COPYRIGHT ROYALTY JUDGES
Washington, DC

In the Matter of **Distribution of the 2004, 2005, 2006, 2007, 2008 and 2009 Cable Royalty Funds**	**Docket No. 2012-6 CRB CD 2004-2009 (Phase II)**
In the Matter of **Distribution of the 1999-2009 Satellite Royalty Funds**	**Docket No. 2012-7 CRB SD 1999-2009 (Phase II)**

WRITTEN REBUTTAL STATEMENT OF THE SETTLING DEVOTIONAL CLAIMANTS

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December 15, 2017

Counsel for Settling Devotional Claimants

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WRITTEN REBUTTAL STATEMENT OF THE SETTLING DEVOTIONAL CLAIMANTS

Pursuant to 17 U.S.C. § 803(b)(6), 37 C.F.R. § 351.11, and the Judges' January 10, 2017 *Order Rescheduling Hearing*, the Settling Devotional Claimants ("SDC") hereby submit their Written Rebuttal Statement in connection with the above-referenced proceedings to determine the Phase II distribution of the 2004 through 2009 cable royalty funds and 1999 through 2009 satellite royalty funds attributable to syndicated Devotional programming.

The SDC's Written Rebuttal Statement includes the written rebuttal testimonies of Dr. Erkan Erdem of KPMG LLP, and Mr. John Sanders of Bond & Pecaro, Inc., which are attached hereto.

Respectfully submitted,

/s/ Jessica T. Nyman

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CERTIFICATE OF SERVICE

I, Jessica T. Nyman, hereby certify that a copy of the foregoing "WRITTEN REBUTTAL STATEMENT OF THE SETTLING DEVOTIONAL CLAIMANTS" was sent electronically and via Federal Express this 15th day of December, 2017 to the following:

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In the Matter of **Distribution of the 2004, 2005, 2006, 2007, 2008 and 2009 Cable Royalty Funds**	))))))	**Docket No. 2012-6 CRB CD 2004-2009** **(Phase II)**
In the Matter of **Distribution of the 1999-2009 Satellite Royalty Funds**	))))))	**Docket No. 2012-7 CRB SD 1999-2009** **(Phase II)**

REBUTTAL TESTIMONY OF ERKAN ERDEM, PH.D.

TESTIMONY OF ERKAN ERDEM, PH.D.

I. Purpose of the Testimony

1. My name is Erkan Erdem. I am a Managing Director at KPMG. KPMG was retained by the Settling Devotional Claimants (SDC) to review economic analyses conducted by Dr. Charles D. Cowan, Ph.D. for Independent Producers Group (IPG) in the distribution of royalties associated with the retransmission of broadcasts by cable in years 2004-2009 and by satellite in 1999-2009, and to comment on the appropriateness of Dr. Cowan's approach in assisting the Judges with the determination of "relative market value."

2. I provided expert witness testimony on August 22, 2016, on this matter as part of SDC's Written Direct Statement in which I proposed a methodology to distribute royalties between IPG and SDC. In that report, I also provided a summary of my qualifications and my understanding of the royalty allocation process.

II. Executive Summary

3. I reviewed the methodology and analyses provided by Dr. Cowan for IPG in this proceeding to determine "relative market value": "The price at which the right to transmit a program carried on a distant broadcast signal would change hands between a willing buyer (a Cable System Operator (CSO)) and a willing seller (a copyright owner), neither being under any compulsion to buy or sell."[1] After careful review of Dr. Cowan's methodology and materials I conclude that:

   - Although Dr. Cowan purports to base his methodology on a regression, his methodology is predominantly based on a simple proportion of the number of SDC and IPG broadcasts, with his regression playing a *de minimis* role in his results. It is entirely unclear what Dr. Cowan is trying to measure, but what he actually measures

[1] *In re Distribution of Cable Royalty Funds 2000-2003*, Final Determination of Distributions Phase II, at 37.

is little more than a proportional comparison of numbers of SDC and IPG broadcasts in a non-random sample of stations.

- Dr. Cowan's economic theory and understanding of the interactions in the marketplace are seriously flawed, and they bear little relationship either to his proposed methodology described in his written testimony or his completely different methodology underlying his computations.
- The most predominant changes in Dr. Cowan's methodology from his original written direct testimony to his amended written direct testimony have no apparent purpose (other than to yield different results) and are inconsistent with Dr. Cowan's explanations.

For each of these reasons, Dr. Cowan's proposed royalty share distribution is not informative.

III. Materials Considered

4. Since my testimony on August 22, 2016, I have obtained, reviewed, and used the following documents and data files during the preparation of this testimony:

   - Expert Report of Charles D. Cowan, Ph.D, August 22, 2016, In the Matter of Distribution of 1999-2009 Satellite Royalty Funds and 2004-2009 Cable Royalty Funds ("Original Report").
   - Amended Expert Report of Charles D. Cowan, Ph.D, August 30, 2016, In the Matter of Distribution of 1999-2009 Satellite Royalty Funds and 2004-2009 Cable Royalty Funds ("Amended Report").
   - IPG Motion to Amend Written Direct Statement dated October 17, 2016 and Exhibit A (including Amended Expert Report of Charles D. Cowan, Ph.D. dated October 13, 2016 ("Second Amended Report")) and Exhibit B (Declaration of Dr. Charles Cowan dated October 17, 2016).
   - Declaration of Dr. Charles Cowan, September 9, 2016.
   - Declaration of Dr. Charles Cowan, September 13, 2016.

- Declaration of Dr. Charles Cowan, September 23, 2016.[2]
- Declaration of Dr. Charles Cowan, November 3, 2016.
- Testimony and underlying documents presented in this case by Dr. Laura Robinson and Dr. Jeffrey Gray.

IV. My Assessment of Dr. Cowan's Approach to Determine Relative Market Value

A. A Description of Dr. Cowan's Methodology as Implemented.

5. To understand why Dr. Cowan's methodology is unusable, one first has to understand how it is implemented. Dr. Cowan's computations underlying his amended direct testimony have very little in common with the regression that he describes in his testimony. Although he claims to use a regression, his results are driven almost entirely by a simple comparison between the number of SDC and IPG broadcasts in his non-random sample, followed by a tiny adjustment of unclear purpose.

6. Before detailing the conceptual problems with Dr. Cowan's calculations, I demonstrate Dr. Cowan's steps for calculating royalty shares (using 2004 cable data as an example):

   - Dr. Cowan starts with a station sample that was "provided" to him. Although Dr. Cowan does not specify the source of the sample he uses or the methodology used to select it, it is apparent based on a comparison with other station samples used in this case that Dr. Cowan's sample is simply an aggregation of the station sample that was previously used by IPG witness Dr. Laura Robinson and the different station sample used by MPAA witness Dr. Jeffrey Gray. Dr. Robinson's sample was a stratified sample of stations, with strata based on fee generation. Dr. Gray's sample was a different stratified sample of stations, with strata based on number of distant subscribers. Dr. Cowan does not explain why he (or whoever provided the sample to him) would attempt to combine two independently developed stratified samples. At no point in his computation does

[2] Dr. Cowan's affidavit on September 23, 2016 provided corrected values for Tables 2 and 4 replacing the tables from the August 30, 2016 Amended Cowan Report.

Dr. Cowan apply sampling weights by strata, nor is it clear how sampling weights could be calculated after combining the two independent samples collected using different sampling methodologies. By combining two stratified samples and failing to apply sampling weights by strata, Dr. Cowan has rendered the samples non-random (because they strongly favour the stations with higher fee generation and subscribership numbers) and unrepresentative. Therefore, it is important to bear in mind throughout the following discussion that it is not possible to project any analysis of this sample to the whole population of retransmitted stations.

- In Step 1 of his computation of shares, Dr. Cowan calculates the number of stations in his sample, the total subscribers associated with these stations, and the total numbers of IPG broadcasts and SDC broadcasts on these stations. In 2004, for example, IPG and SDC had 6,427 (30.04 percent) and 14,966 (69.96 percent) broadcasts, respectively, on Dr. Cowan's sample of 190 stations. These 190 stations had 227,934,730 total subscribers.

- In Step 2, Dr. Cowan calculates what he calls "per station" values by dividing the numbers of broadcasts and the number of total subscribers by the number of stations: IPG and SDC had 33.83 and 78.77 broadcasts per station, respectively, and there were an average of 1,199,656 subscribers per station.

- In Step 3, Dr. Cowan "allocates" the 1,199,656 subscribers per station to IPG and SDC based on the share of broadcasts from Step 1: IPG and SDC are allocated 360,407 and 839,249 subscribers per station (totalling 1,199,656), respectively (reflecting precisely the same proportions as were determined in Step 1).

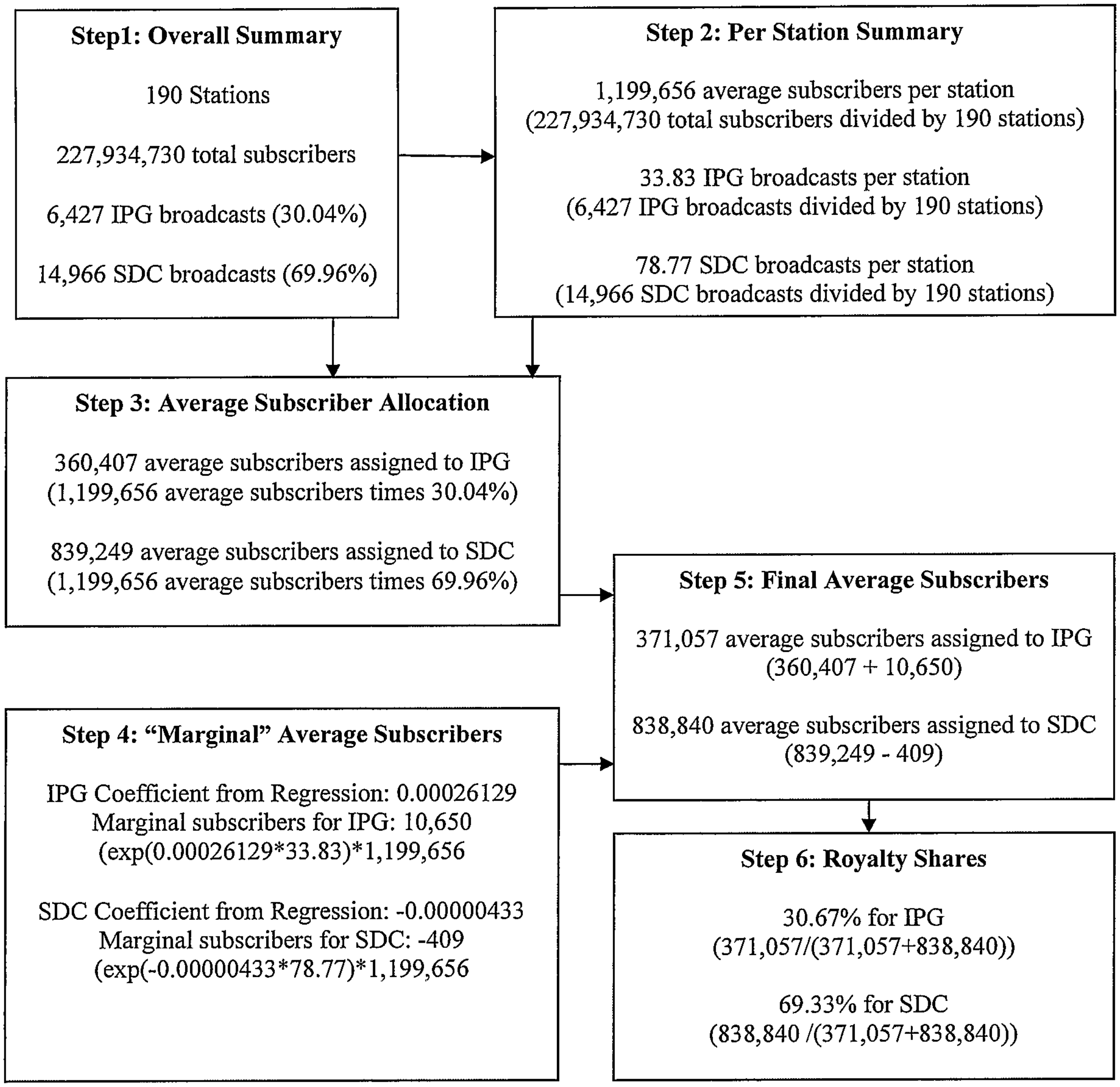
- In Step 4, Dr. Cowan estimates what he calls the "marginal return" of one additional broadcast from his regression model, obtaining 0.0002613 for IPG and -0.00000433 for

SDC (further discussed below) as the coefficient estimates. In the same step, Dr. Cowan calculates "marginal values" for "something" for IPG and SDC as 10,650 and -409, respectively.[3] The calculation formula, which combines the marginal returns with the average broadcasts per station and the average number of total subscribers per station, resembles Dr. Cowan's equations (2) and (3), but it is clearly very different.

- In Step 5, Dr. Cowan simply adds the "marginal values" for IPG and SDC respectively to the "allocated" subscribers per station, obtaining 371,057 (360,407 + 10,650) for IPG and 838,840 (839,249-409) for SDC. According to Dr. Cowan, these values then imply royalty shares of 30.67 percent and 69.33 percent for IPG and SDC, respectively – only a fraction of a percent different from the simple proportional comparison of number of broadcasts that Dr. Cowan calculated in Step 1. Because the "marginal values" are tiny in comparison to the "allocated" number of subscribers, they have little effect on the results, which are nearly identical to a simple proportionate comparison of the number of IPG and SDC broadcasts in the sample.

A graphic illustration of Dr. Cowan's processing steps is below:

[3] These values are calculated as (exp(0.0002613*33.83)-1)*1,199,656 for IPG and (exp(-0.00000433*78.77)-1)*1,199,656 for SDC.


Step1: Overall Summary
190 Stations
227,934,730 total subscribers
6,427 IPG broadcasts (30.04%)
14,966 SDC broadcasts (69.96%)
Step 2: Per Station Summary
1,199,656 average subscribers per station
(227,934,730 total subscribers divided by 190 stations)
33.83 IPG broadcasts per station
(6,427 IPG broadcasts divided by 190 stations)
78.77 SDC broadcasts per station
(14,966 SDC broadcasts divided by 190 stations)
Step 3: Average Subscriber Allocation
360,407 average subscribers assigned to IPG
(1,199,656 average subscribers times 30.04%)
839,249 average subscribers assigned to SDC
(1,199,656 average subscribers times 69.96%)
Step 4: "Marginal" Average Subscribers
IPG Coefficient from Regression: 0.00026129
Marginal subscribers for IPG: 10,650
(exp(0.00026129*33.83)*1,199,656
SDC Coefficient from Regression: -0.00000433
Marginal subscribers for SDC: -409
(exp(-0.00000433*78.77)*1,199,656
Step 5: Final Average Subscribers
371,057 average subscribers assigned to IPG
(360,407 + 10,650)
838,840 average subscribers assigned to SDC
(839,249 - 409)
Step 6: Royalty Shares
30.67% for IPG
(371,057/(371,057+838,840))
69.33% for SDC
(838,840 /(371,057+838,840))

7. Aside from the observation that Dr. Cowan's computation is predominantly a simple comparison between the number of IPG and SDC broadcasts in his sample, it is not clear what Dr. Cowan is trying to calculate. Why are the "allocated" actual subscribers combined with the "marginal" subscribers to calculate royalty shares? Is Dr. Cowan considering a scenario in which IPG and SDC each adds a single broadcast to a single station? Is Dr. Cowan assuming that each station is adding one more IPG and SDC broadcast to every station? Why is Dr. Cowan not simply combining the marginal return estimates with the total broadcasts for IPG and SDC in order to calculate the royalty shares? Dr. Cowan's confusion is evident in his testimony, as he states "... I create a summary of what was gained by IPG relative to what was gained by SDC ...".[4] How are IPG and SDC "gaining" subscribers? It is unclear. He later adds:

> "Equations (2) and (3) give the proportion of additional subscribers that one would expect when stations offer IPG devotional programs, in (2), and the proportion of additional subscribers that one would expect when stations offered SDC devotional programs, in (3). Only "e" or "f" measure a change in subscribers, so (2) and (3) are the marginal returns in the total number of subscribers if one offers a set number of programs, either IPG or SDC."[5]

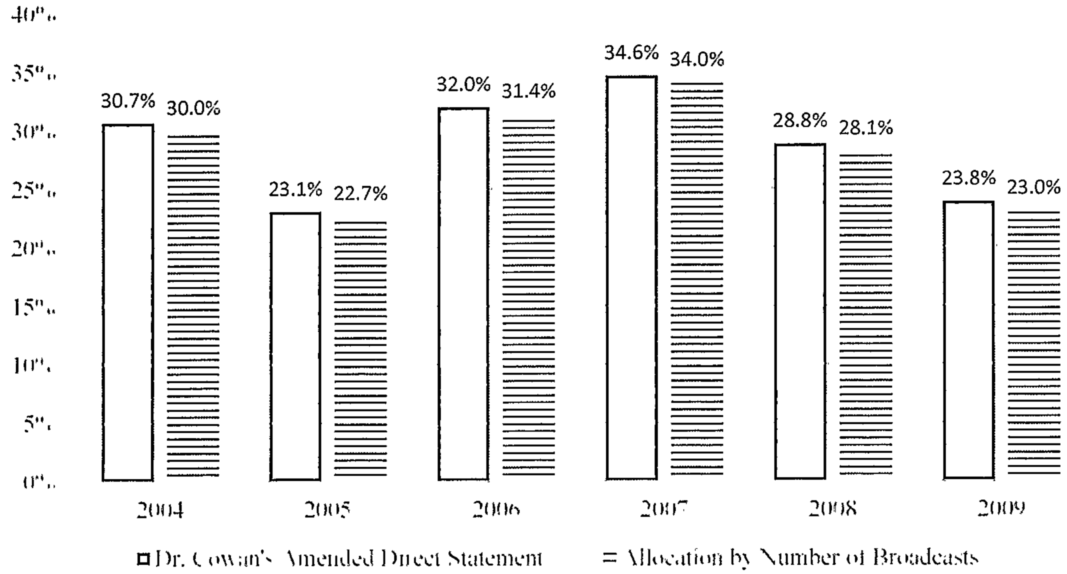
What are these "additional" subscriber calculations? Because Dr. Cowan did not provide a precise explanation for what he meant to calculate as "marginal effects", it is unclear what this formula may represent.

8. In fact, and adding further to the confusion, Dr. Cowan does not even use his equation (2) or equation (3) (defined in paragraph 34 in Dr. Cowan's Amended Report) to measure the "marginal effects."[6] These equations require *total* IPG and SDC broadcasts, but Dr. Cowan

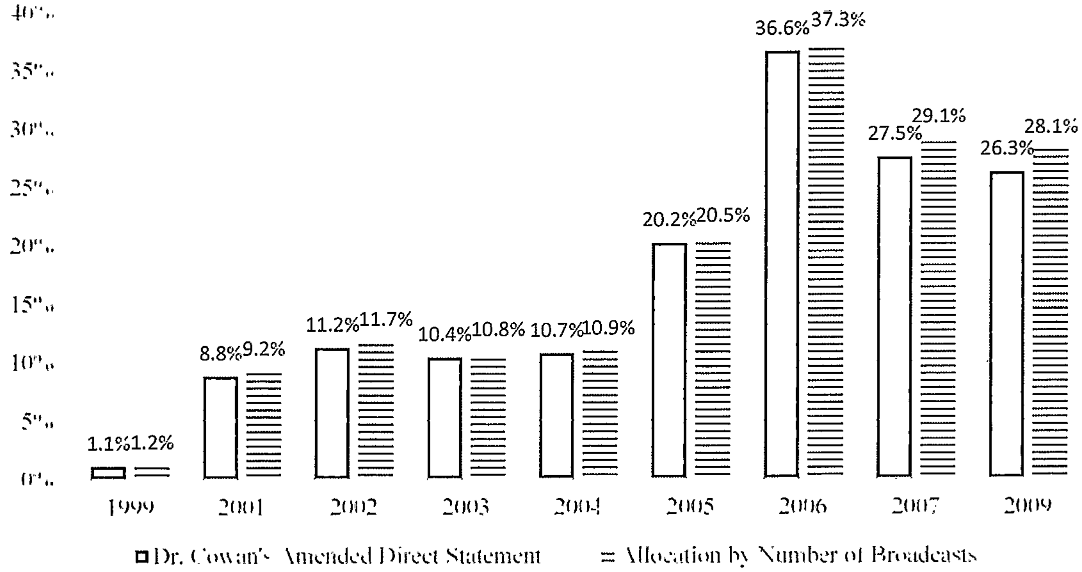
[4] Dr. Cowan's Amended Report ¶ 34.
[5] *Id.* ¶ 35.
[6] The relative share calculation is performed in the file named "*Calculation of Shares.xlsx*".

instead uses amounts that are *average* IPG and SDC broadcasts per station. This is clearly an error, or at least an inconsistency between his Amended Report and his data work. Whatever Dr. Cowan's logic may be, it is very clear that Dr. Cowan could have simply stopped after performing his Step 1, and proposed a royalty share of 30.04 percent for IPG, which is based on the total number of broadcasts, instead of going through a flawed regression analysis with no clear purpose to propose 30.67 percent. The graphs below show that relative shares based solely on number of broadcasts are substantially identical to the shares proposed by Dr. Cowan for both cable and satellite, respectively:

Analysis of Dr. Cowan's Proposed Cable Royalty Shares for IPG



Analysis of Dr. Cowan's Proposed Satellite Royalty Shares for IPG



Note: Years 2000 and 2008 are excluded. IPG's shares are 0% for 2000 and 2008 under both scenarios.

9. For whatever it is worth, Dr. Cowan's processing steps underlying his Original Report were completely different from the processing steps underlying his Amended Report. In his Original Report, Dr. Cowan used only the "marginal effect" from his level-level regression specification, rather than combining the "marginal effect" from his log-level regression specification with the far more predominant "allocated subscribers" measure that he used in his Amended Report. Because neither approach has any apparent sense or reasoning behind it, I cannot say why he changed from one approach to the other.

B. Dr. Cowan's Discussion of Economic Theory Underlying His Proposed Regression Model Is Deeply Flawed.

10. Even setting aside the fact that Dr. Cowan's computations do not match the regression methodology that he describes, the regression methodology that Dr. Cowan describes is nonsense. Dr. Cowan presents a regression model (although he does not really apply it in his computations, except as a tiny adjustment to what is otherwise a simple proportional comparison of numbers of broadcasts) that is based on associating the number of distant subscribers with the number of broadcasts for relevant programs. (In Dr. Cowan's underlying computations, his regression uses total subscribers, and not distant subscribers. It is not clear which metric he intended to use, or why.) Dr. Cowan argues that this approach is appropriate, as CSOs earn revenues by enticing potential viewers to subscribe (or retain current subscribers). However, Dr. Cowan fails to show an understanding of the underlying economics around CSO behavior, and his proposed regression includes ludicrous implicit assumptions.

11. Dr. Cowan starts by stating that "… a CSO is paying a fee as a royalty for rebroadcasting a station."[7] This is false. Cable systems pay a statutory fee for retransmitting one or more distant stations with a distant signal equivalency of one or more, *or a minimum fee if it*

[7] Dr. Cowan's Amended Report, August 30, 2016, ¶ 12.

retransmits stations with less than 1 distant signal equivalency. All fees are based on a regulatory formula.[8] There is no pre-determined fee amount (or price) associated with each signal. The fee amount is not determined through negotiations between CSOs and signal owners. The fact that fees cannot reliably be allocated among multiple signals retransmitted by the same cable or satellite system operator as well as the fact that systems retransmitting no signals must nevertheless pay a minimum fee, are among the many reasons that fee-generation methodologies generally say little about *value*.

12. But even if Dr. Cowan's theory were correct, and even if fees paid by cable or satellite system operators might arguably say something (albeit not much) about how a cable or satellite system operator values a mix of distant signals, Dr. Cowan chose to ignore the amount of fees paid completely. His regression formulas are based on numbers of subscribers, and not amounts of fees.

13. Dr. Cowan also argues "A second part to the economic theory is that a CSO can decide to pay or not to pay for a station."[9] This is an oversimplification. Every cable system operator must pay a fee, regardless of whether it retransmits a distant signal. With information on minimum fees, a CSO may decide to retransmit a station or stations in a distant market with the expectation that doing so will maximize its profits (revenues from subscriptions minus the royalties implied by the formula and other costs). But a CSO cannot decide "not to pay."

14. Dr. Cowan goes on to say that the decision on whether to retransmit a signal and to pay the corresponding fee: "is a fair market transaction in the market where the CSO obtains packages of programs with the ability to accept or reject based on the pricing and the expected value to the CSO."[10] This is not correct, either. Although there is a "transaction,"

[8] A different payment system applies to satellite resale carriers, as set forth in Section 119 of the Copyright Act and implementing regulations.
[9] Dr. Cowan's Amended Report, August 30, 2016, ¶ 13.
[10] *Id.* ¶ 13.

it is not a "fair market" transaction, as that term is used by economists. By definition, a "fair market" transaction requires a willing buyer and a willing seller, both being reasonably informed and neither being under compulsion. In the "transaction" of a cable or satellite operator's decision on whether to retransmit one or more stations, there is no "willing seller," and there are multiple compulsions on the buyer, including, critically, the fact that the price is set by regulation rather than by any market mechanism. But false or not, as noted above, Dr. Cowan's discussion of CSO behaviour and fees paid bears little relation to his models, which have completely disregarded fees paid.

15. Dr. Cowan goes on to say, "A third part of the economic theory is that, while there is likely some variation in the value from CSO to CSO about the value of different titles, the value cannot vary in an extreme manner, since that would create an extreme demand for some stations that are offering the popular titles, and thus the title would be omnipresent."[11] It is difficult to understand what Dr. Cowan meant to say, as he does not provide any explanation or analyses to support this claim. Whatever Dr. Cowan meant to say, it clearly does not play a role in his econometric model, and, thus, should also be disregarded.

16. Dr. Cowan says, "[F]inally, the CSO earns its revenues by signing on subscribers."[12] Even though this is largely true, it does not follow, as Dr. Cowan says, that "viewership cannot be important to the decisions of the CSO ...."[13] As has been noted in prior distribution proceedings, economic theory suggests that subscribers will view programs that they value and for which they are willing to pay a subscription fee, because the ability to view valued programs is the principal reason for a subscriber to pay a subscription fee. Therefore, within a category of programming geared toward a discrete set of subscriber tastes, a cable or satellite system is likely to prefer stations that include programs within that category that

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[11] *Id.* ¶ 14.
[12] *Id.* ¶ 15.
[13] *Id.* ¶ 16.

attract larger audiences, because larger audiences imply a higher likelihood that subscribers within that audience value the programs enough to pay the subscription fee.

C. Dr. Cowan's Examples of Regression Analyses in Other Contexts Are Inapposite.

17. Regression analysis is a widely used method that allows researchers to measure the relationship of one (explanatory or independent) variable with another (dependent) variable. The results of regression analysis may provide an estimate of the impact on the dependent variable of an incremental change in the independent variable, known by economists as the "marginal" effect. Hence, regression analysis is commonly used in economics to understand how a particular variable (e.g., household savings) changes with regards to changes in other observable information (e.g., income, geography, household characteristics). However, a researcher must take proper care to understand the underlying data, and the question of interest, in order to determine if a regression analysis is appropriate and what the estimates from the model might mean if it is appropriate.

18. In his Original and Amended Reports, Dr. Cowan provides two examples from his previous work in which he had applied regression models. The examples described, however, are irrelevant and inapplicable to the proceedings in this case.

19. In Dr. Cowan's first example, the Federal Deposit Insurance Corporation (FDIC) sells a pool of assets for a single price. In paragraph 20 of his Original and Amended Reports, Dr. Cowan describes the pool of assets as follows:

> "A pool that is sold is composed of, for example, residential mortgages, commercial mortgages, commercial loans, real estate, construction loans, and other types of assets."

Dr. Cowan argues that given information from multiple such sales, a regression model can be applied to determine the marginal values of particular types of asset within the pools. Dr. Cowan's analysis uses the price paid for each pool as the starting point for his regression. The number and types of assets that comprise each pool are known, and can be factored into his model. Given the amount of information available regarding the pool of assets and their value, I agree that it might be appropriate in Dr. Cowan's example to estimate the value of particular assets in the pools using a regression model. The market price of the pool establishes the "fair market" value of the bundle of assets, and a precise relationship between the market price of the bundle and all included assets can be calculated.

20. Dr. Cowan states that "This is exactly the same problem faced in this litigation."[14] This claim is false, and the example does not apply to the determination of the marginal value of the IPG and SDC programs in this proceeding. Unlike the sale prices of the pools of assets, neither the fees paid nor the number of distant subscribers, which Dr. Cowan uses in his work, is a measure of "fair market value," and the regression model that Dr. Cowan proposes would take into account only a very small portion of the total "bundle." Regressions based on the composition of bundles of assets necessarily must account for the presence of all assets in the bundle, rather than merely the assets whose value the analyst is attempting to determine. Each station that is distantly retransmitted includes a variety of programs other than simply IPG and SDC programs, and each cable subscription includes many, many more channels than just the stations that the operator chooses to retransmit on a distant basis. By considering the number of subscribers only in terms of its relation to the number of SDC versus IPG programs on distant signals (or the number of MPAA versus IPG programs on distant signals), Dr. Cowan's regression implicitly assumes that the entire number of subscribers to a cable or satellite system is determined by the number of SDC or IPG programs on distant signals, rather than the entirety of programs on the same distant signals, or the potentially thousands of programs on other channels offered by the same

[14] *Id.* ¶ 22.

cable and satellite systems. Dr. Cowan states "the number of subscribers obtained will vary by a number of factors, including the number of IPG and SDG programs."[15] But he does not consider these other factors in his regression model except for the inclusion of fixed effects for each station.

21. Dr. Cowan's second example describes using a regression model to determine which characteristics of a car (in his example a Fiat) are the most desirable to a customer. His analysis is based on the price each buyer paid and the characteristics of each car. Dr. Cowan states:

> "I could relate prices paid for cars to the characteristics that each make\model had (e.g. horsepower, wheelbase, interior room, trunk space, etc.) and derive the marginal return for each characteristic."[16]

This example is not applicable, either. In this example, similar to the example of asset pools discussed above, Dr. Cowan presumably would know the price paid for each car and all of the characteristics of each car. It may be appropriate to use a regression model to determine the value of a particular component or a characteristic of a car if one can take into account all of the components of those cars so that all components are precisely captured in the analysis. (If only one or a few components of the car are captured in the analysis, a regression might incorrectly conclude, for example, that the entire difference in price between a Rolls Royce and a Pinto was due to the brand of tires, simply because the cars have different values and use different brands of tires.) The prices paid for cars are "fair market valuations" by consumers, unlike the number of distant subscribers in this proceeding, which is not a measure of fair market value.

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[15] *Id.*

[16] *Id.* ¶ 23.

22. Dr. Cowan continues his discussion with "Again – the sale is for a bundle of characteristics, but a single price is paid, in exactly the same way that a single payment is made by a cable or satellite operator to entice more households to subscribe, but the station acquisition involves only a single licensing fee."[17] Again, Dr. Cowan does not even use fees paid by cable or satellite operators in his regression analysis—he uses distant subscribers (in his narrative description) and total subscribers (in his underlying calculations).

23. Finally, Dr. Cowan discusses pricing in the rental car market, and the value of specific car features to consumers. It is not clear if Dr. Cowan had an experience with regression analysis on this topic or if he is merely arguing that a regression may be appropriate if one were interested in valuing car features for a car rental agency. He argues, "Usage of car features is immaterial. That doesn't mean the features have no value, since they comprise of a piece of the whole – it just means that usage of the features is not part of the calculus of demand and supply. In the same way, viewing of the IPG, SDC, or MPAA programs has no relevancy."[18] Dr. Cowan appears to be confused about how the value of a car feature can be measured. The *value* of a feature is part of the sale price of the car in the transaction between the seller (the manufacturer or car dealer) and, in this example, the car rental agency. In what Dr. Cowan discusses, a car rental agency's business is based on whether a car with specific features is rented or not (at the price set by the agency). As an economist, I would expect that car rental agencies would try to understand the demand for their cars in relation to the desired features as they put together their fleets.[19] I would not expect car rental agencies to try to measure usage of a CD player or A/C in setting their prices, but they would adjust rental pricing for specific features provided in the car, as they would have

[17] *Id.* ¶ 25.
[18] *Id.* ¶ 26.
[19] *See, e.g.*, Jim Gorzelany, *The Most-Wanted New-Car Features*, FORBES (Nov. 13, 2015, 10:54 AM), https://www.forbes.com/sites/jimgorzelany/2015/11/13/the-most-wanted-new-car-features/#45a072e156d3.

paid more to have these feature available. For example, a car with a navigation system may have rental price that is a few dollars a day higher than a car without a navigation system, assuming that all other features provided in each car are identical. Based on market research and other data, a car rental agency may find out that cars without a specific feature are not demanded (and rented) by customers at the price point needed to give an adequate rate of return on the additional amount spent for the feature. This measure of demand could impact its decision to keep a car in its fleet (or not), and also its decision to purchase similar cars in the future. It is the measure of demand that is analogous to viewership, rather than actual decisions to use a specific feature. Similarly, if a program or a group of programs on a particular station has no actual or expected viewership in a distant market, then a cable or satellite operator free from constraint may be expected to choose not to add that station to its bundles based on viewership as an estimate of demand for a program within a particular genre.

D. Dr. Cowan's Proposed Methodology Does Not Measure "Relative Market Value"

24. Dr. Cowan's proposed regression approach associates the natural logarithm of distant subscribers with counts of SDC and IPG broadcasts in the Devotional category. Dr. Cowan proposes to use the estimates for "marginal" values (i.e., coefficient estimates) to calculate the "marginal" increase in the number of distant subscribers that he says would be implied by the model. He then adds this number to the "allocated" number of distant subscribers for IPG and SDC in order to calculate the royalty shares for IPG and SDC, and similarly for IPG and MPAA.

25. Dr. Cowan's methodology to calculate the "relative market value" of IPG and SDC claimed programs is inappropriate for a number of reasons. First, as I detailed earlier in my report,

Dr. Cowan's "Related Economic Theory"[20] section of his report, which discusses that the CSO is paying a fee for rebroadcasting each station, is completely disconnected from his quantitative analyses. Dr. Cowan states, "This is a fair market transaction in the market where the CSO obtains packages of programs with the ability to accept or reject based on the pricing and the expected value to the CSO."[21] However, his regression model relies on the number of subscribers to measure "value", not the fees paid by operators. In sum, Dr. Cowan does not offer a methodology that is supported by the economic theory.

26. Second, the purpose of these proceedings is to determine the "relative market value" of claimed programs, which calls for a method that best estimates the price (or value) of the program(s) that would prevail between a willing buyer and a willing seller, [22] both fully informed and neither being under compulsion. Dr. Cowan's proposed approach clearly would not do that. The number of subscriptions to a system has essentially nothing to do with how an operator may value any specific program or set of programs. Subscriptions to systems depend on a variety of other factors (e.g., hundreds of channels, thousands of programs, market conditions, population, marketing, other operator-specific facts) that are ignored in Dr. Cowan's model. Just as one obvious example, Dr. Cowan's model excludes all sports and news programs on each station, both of which the Judges have long ago determined contribute to subscriptions.[23] It also excludes all of the many non-distantly retransmitted stations and other channels that make up the vast bulk of the "bundle" that system operators make available to subscribers. Hence, Dr. Cowan's approach does not offer any measure that may be related to the value of individual programs. Subscription to

[20] Dr. Cowan's Amended Report, August 30, 2016, ¶¶ 12-16.
[21] *Id.* ¶ 13.
[22] The "willing buyer" refers to the cable and satellite operators, while the "willing seller" refers to the owners of copyrighted programs.
[23] In econometrics, this is known as the omitted variable bias when a relevant factor is incorrectly excluded from the model.

a bundle of programs alone does not imply viewership or any other plausible measure of interest, demand, or value for the programs claimed by IPG and SDC. The number of subscribers alone therefore does not provide any information as to the "relative market value" of IPG or SDC programs.

27. Dr. Cowan also states:

> "subscriber data for the stations and programs offered can be combined in a structure that permits the computation of the marginal returns ascribed to particular classes of programs (IPG or SDC) based on factors that relate to the value of a station and a program class."[24]

Dr. Cowan's model implicitly assumes that the difference in the number of IPG and SDC programs on a given station is the sole or predominant reason for the difference in the number of subscribers. However, as I explain above, subscription to a system depends on many factors (other than broadcasts of IPG, SDC, and MPAA-claimed programs) that are not included in Dr. Cowan's analysis. He does not consider other programs on the same distantly retransmitted stations, other programs on all the other stations retransmitted or channels offered by the cable and satellite operators, or any other factor that might influence the number of subscribers, such as marketing, geography, demographics, or competition.

28. Third, by effectively comparing all IPG claimed programs together with all SDC programs together, Dr. Cowan's regression implicitly assumes that all IPG programs are similar, and are distinguished in the marketplace from all SDC programs, which are also assumed to be similar to each other. There is nothing to support the claim that all IPG programs or all SDC programs have an equal tendency to attract the same number of subscribers, or that either system operators or subscribers view IPG-claimed programs as different in kind from SDC-claimed programs. Dr. Cowan does not even attempt to account for the characteristics of the individual programs that are retransmitted.

[24] Dr. Cowan's Amended Report, August 30, 2016, ¶ 27.

29. Fourth, the purported purpose of Dr. Cowan's regression analysis is to estimate the relative marginal value of individual programs in the bundles purchased by the CSOs.[25] Dr. Cowan states "the presence of a title in a station that is being rebroadcast is used to calculate the marginal value of that title when it is part of a station's offering."[26] This statement is wrong. Dr. Cowan's regression model only considers IPG programs as a whole and SDC programs as a whole. By treating all SDC (or IPG) programs equally, the model does not estimate the marginal effect of an individual program on the number of subscribers.

E. Dr. Cowan's Explanations for the Changes in His Testimony Are Incorrect and Misleading.

30. Dr. Cowan submitted three statements (his Original Report dated August 22, 2016, the First Amended Report dated August 30, 2016, and a Second Amended Report dated October 13, 2016). Initially, Dr. Cowan provided a misleading explanation for the changes between the original and amended reports. Specifically, Dr. Cowan stated that he made a "correction to the data." In fact, Dr. Cowan changed his regression model from a *linear* equation (or *level-level*) in the Original Report to a *logarithmic* equation (or *log-linear*) in the Amended and Second Amended Reports, and also significantly changed the way that he used his regression results.

31. The choice of using a level-level (or linear) regression or a log-linear regression is typically discussed under the heading of "functional form" or "model specification" in statistics or econometrics textbooks, all under the "regression" main heading or chapter.[27] Within the regression analysis, a log-linear model, compared to a level-level model, is a different "functional form" or "specification." Using a transformed variable, such as taking the

[25] *Id.* ¶ 13.
[26] *Id.* ¶ 16.
[27] *See, e.g.*, Jeffrey M. Wooldridge, *Sec. 6.2. More on Functional Form in* Introductory Econometrics, A Modern Approach, (South-Western Cengage Learning 4th ed. 2008); *see also* William Greene, *Ch. 8, Sec. 8.3. Nonlinearity in the Variables in* Econometric Analysis (Prentice Hall 4th ed. 2000).

natural logarithm, is also known as "scaling." By changing the functional form, or transforming the dependent variable used in his regression model, Dr. Cowan assumes a significantly different type of relationship between subscribers and number of SDC or IPG broadcasts. This material change also leads to a different set of coefficient estimates, a different interpretation of coefficient estimates, and different implied royalty share estimates based on his predictions. I emphasize the importance of the words "changing" and "different" in this paragraph precisely because Dr. Cowan argues that he *did not change* his methodology by using a log-linear regression instead of a level-level regression within the regression approach.

32. In paragraph 33 of his Amended Report, Dr. Cowan argues the following:

> "If one takes the partial derivative of Subscribers with respect to "devotional", the coefficients "e" and "f" give the marginal returns for offering devotional programs from either source in terms of attracting more subscribers."

This statement is wrong. It would have been correct if his regression were a level-level regression. Because Dr. Cowan changed his approach from a level-level regression to a log-linear regression, the partial derivative of subscribers with respect to "devotional" in equation (1)[28] would **not** yield coefficients "e" or "f". Specifically, the partial derivative of Subscribers with respect to the number of IPG or SDC devotional shows is given by "e" or "f" multiplied by the value of subscribers, respectively. Dr. Cowan simply inserted a note in Appendix 2 of his testimony to downplay the impact of the change in his approach on the equations that represent marginal value.

33. The choice of functional form is a matter of economic intuition, real-world facts or experience, and statistical properties of different choices, such as "goodness of fit." As Dr. Cowan explains, R-squared is a commonly used measure that explains which model

[28] Dr. Cowan's Amended Report, August 30, 2016, ¶ 32.

explains more of the variability in the dependent variable.[29] When faced with multiple potentially reasonable model options, one may pick the model with the highest value of R-squared, which varies between zero and one.[30] Using the data from his Amended Report, it appears that Dr. Cowan estimates both the log-linear and level-level regressions, and provides the values for R-squared for both cable and satellite. Dr. Cowan then explains that the log-linear models had slightly higher values for R-squared than the level-level models (about 2.3%-2.5% for satellite and cable, respectively).

34. First, it is not clear how the comparison of R-squared values for the log-linear and level-level models demonstrates "*mathematically* that my allocated percentage shares to IPG, MPAA, and the SDC, were not significantly affected [by] the use of logarithmic versus linear scaling."[31] The comparison of R-squared values has nothing to do with the differences in shares I have seen in Dr. Cowan's Original and Amended Reports. To support that statement one would need to compute the royalty shares under both models and analyze the magnitude in the change of the percentages.

35. Second, it is contrary to sound econometric reasoning for Dr. Cowan to argue that one can compare R-squared values of two models with different dependent variables.[32] Although it is common practice to test for statistical fit by transforming *independent* variables, the R-squared can be compared across models only if both models have the same *dependent* variable. This is a fundamental concept in understanding the implications of model specification:

> *"Little can be said about the relative quality of fits of regression lines in different contexts. One must be careful, however, even in a single context, to be*

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[29] Declaration of Dr. Charles Cowan, October 17 2016, ¶¶ 12-14.

[30] Without getting into too much econometric detail, one would "adjust" for the number of independent variables (i.e., use an alternative version called adjusted R-squared), if that changes across models.

[31] Declaration of Dr. Charles Cowan, October 17 2016, ¶ 14.

[32] Declaration of Dr. Charles Cowan, October 17 2016, ¶¶ 12-14.

sure to use the same basis for comparison for competing models. Usually, this concern is about how the dependent variable is computed. For example, a perennial question concerns whether a linear or log-linear model fits the data better. Unfortunately, the question cannot be answered with a direct comparison. *An R-squared for the linear regression model is different from R-squared for the log-linear model. Variation in y is different from variation in ln y."*[33] (Emphasis supplied.)

This fact is another reason why level-level and log-linear models are very "different" approaches.

36. In his declaration, Dr. Cowan presents a table depicting the R-squared values for both the level-level and log-linear models, and clearly uses the R-squared to compare the fit[34] of two models when he states:

> "As a basis of comparison, the following chart compares the amount of variability attributable to moving from linear scaling to logarithmic scaling using the same database after more accurately matching the claimed titles to the compensable programs and broadcasts."[35]

Then, Dr. Cowan argues that the variation in total subscribers explained by the log-linear model increased over the linear model by 2.5% for cable and 2.3% for satellite – clearly comparing the R-squared values to justify why a log-linear model was a better choice.[36] Even after being reminded that this is contrary to econometric principals, Dr. Cowan reacts by stating:

> "... while I understand that Dr. Erdem is concerned with the comparison of the R-squared values from a linear and a log-linear regression, the fact remains that the *percent of variation explained is larger in the log-linear regression than the*

[33] Greene, *Econometric Analysis*, at 241.
[34] The words "fit", "variance", and "variability" may be used interchangeably.
[35] Declaration of Dr. Charles Cowan, October 17 2016, ¶ 12.
[36] Declaration of Dr. Charles Cowan, October 17 2016, ¶ 14.

percent of variation explained in the linear regression, and therefore superior."[37] (Emphasis supplied.)

It appears that instead of admitting the error in his approach, Dr. Cowan insisted on relying on a comparison that is taught to economics students as a "commonly made mistake."

37. I have also reviewed Dr. Cowan's data, computer code, and calculations. I can confirm that Dr. Cowan also made some corrections to his data processing, which Dr. Cowan admitted were due to errors he made when processing the input data. I then compared the IPG and SDC subscriber and broadcast data Dr. Cowan used in the regressions in his Original and Amended Reports for both cable and satellite, respectively, which I present in **Exhibits R1** and **R2**. The tables illustrate the significant changes Dr. Cowan made to the input data used in his regression models, particularly in the cable subscriber data. Both tables show that there was an increase in the number of call signs and the number of total subscribers in the data Dr. Cowan used in the Amended Report from the data he used in his Original Report. However, the number of broadcasts in cable decreased for both IPG and SDC in every year (except for one year for IPG broadcasts in cable when it was unchanged). The number of IPG broadcasts in satellite remained unchanged, but SDC broadcasts changed by a few broadcasts in some years.

38. Regarding the changes to the data, Dr. Cowan offers a lengthy explanation in his declaration that appears to be incorrect.[38] Dr. Cowan's explanation is consistent with the increase in the number of call signs and the number of total subscribers between his Original and Amended Reports. However, he states "the SDC had a net increase of 89 program broadcasts in the stations analyzed," which contradicts my calculations using the data provided by Dr. Cowan (**Exhibits R1** and **R2**). In my calculations, the number of SDC broadcasts in cable decreased in all years, and the number of SDC broadcasts in satellite

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[37] *Id.* ¶ 14.

[38] Declaration of Dr. Charles Cowan, October 17 2016, ¶ 14.

remained mostly the same. In total, the number of IPG and SDC cable broadcasts decreased by 11,173 and the number of IPG and SDC satellite broadcasts decreased by 47. Dr. Cowan argued that "... the net difference was not substantial" which I disagree with for cable.[39]

V. Conclusions

39. What Dr. Cowan is attempting to measure in his code and data work is unclear and different from what he presents in his written testimony. He uses a non-random and unrepresentative dataset, without applying sampling weights. The royalty shares that are implied by his model are basically equivalent to the shares implied by a proportional comparison of the number of IPG and SDC broadcasts, with some "marginal" (or additional) factor added by Dr. Cowan. His regressions are based on flawed economic theory. The changes in his testimony are unexplained.

40. Overall, Dr. Cowan presents a model that is not reliable. The approach is mainly driven by the relative share of total broadcasts for IPG and SDC, which has little or nothing to do with relative market value. Dr. Cowan justifies his work by discussing how the main objective of CSOs is to increase subscribers, but by relating subscribers with the number of broadcasts, he presents a ludicrously simplistic and incorrect analysis of the complex world that is being analyzed.

[39] *Id.* ¶ 4.

VI. Declaration of Erkan Erdem

I declare under penalty of perjury that the foregoing testimony is true and correct, and of my personal knowledge.

Executed on December 15, 2017

Erkan Erdem, Ph.D.

Exhibit R1: IPG and SDC Cable Subscriber Data Comparison

Year	Number of Call Signs		Total Subscribers		Number of IPG Broadcasts		Number of SDC Broadcasts	
	Original	Amended	Original	Amended	Original	Amended	Original	Amended
2004	143	190	52,260,325	227,934,730	7,255	6,427	16,701	14,966
2005	144	197	52,655,833	234,310,967	4,585	3,868	16,102	13,213
2006	144	187	58,447,951	294,757,569	7,054	6,276	15,338	13,732
2007	137	184	53,232,470	231,811,917	6,144	6,124	12,065	11,876
2008	133	166	53,215,095	218,979,347	6,466	5,701	15,932	14,585
2009	138	179	61,268,070	296,438,194	7,073	7,073	23,993	23,694
Total	**839**	**1,103**	**331,079,744**	**1,504,232,722**	**38,577**	**35,469**	**100,131**	**92,066**

Exhibit R2: IPG and SDC Satellite Subscriber Data Comparison

Year	Number of Call Signs		Total Subscribers		Number of IPG Broadcasts		Number of SDC Broadcasts	
	Original	Amended	Original	Amended	Original	Amended	Original	Amended
1999	33	34	317,437,883	322,471,106	14	14	1,164	1,164
2000	48	91	367,673,079	367,840,550	0	0	2,079	2,079
2001	59	103	387,300,952	388,180,913	234	234	2,319	2,319
2002	55	98	398,806,005	399,237,884	257	257	1,945	1,946
2003	39	73	388,920,248	389,253,021	177	177	1,463	1,463
2004	44	90	383,097,644	385,131,247	96	96	783	784
2005	48	89	397,775,928	398,072,380	227	227	930	878
2006	64	116	390,352,900	393,375,292	727	727	1,220	1,221
2007	53	63	377,842,456	379,876,658	747	747	1,823	1,824
2008	55	61	377,419,414	380,947,112	0	0	1,764	1,765
2009	56	69	374,129,033	374,972,258	989	989	2,528	2,528
Total	**554**	**887**	**4,160,755,542**	**4,179,358,421**	**3,468**	**3,468**	**18,018**	**17,971**

Before the
COPYRIGHT ROYALTY JUDGES
Washington, DC

In re	)	
Distribution of 2004, 2005, 2006, 2007, 2008, and 2009 Cable Royalty Funds	)	DOCKET NO. 2012-6 CRB CD 2004-09 (Phase II)
Distribution of 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009 Satellite Royalty Funds	)	DOCKET NO. 2012-7 CRB SD 1999-2009 (Phase II)

Rebuttal Testimony of John S. Sanders

Rebuttal Testimony of John S. Sanders

My name is John S. Sanders and I am testifying on behalf of the Settling Devotional Claimants ("SDC") in these proceedings. I have been requested to provide rebuttal testimony in the 2004, 2005, 2006, 2007, 2008 and 2009 Phase II Cable Royalty Proceeding and the 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009 Phase II Satellite Royalty Distribution Proceeding. For simplicity, I refer to these matters as "the Proceedings" in this testimony.

I provided prior written and oral testimony in connection with the Proceedings, culminating with an appearance before the Copyright Royalty Judges ("Judges") in April of 2015. On May 4, 2016, the Judges issued an *Order Reopening Record and Scheduling Further Proceedings* requesting the parties to the Proceedings to "present additional evidence and expert opinion" due to the Judges' finding that "[n]o party has presented a methodology and data that, together, are sufficient to support a final determination in the contested categories." I also provided direct testimony in this re-opened proceeding.

The purpose of this current testimony is to comment on the Expert Report of Charles D. Cowan, Ph.D., submitted with Independent Producers Group's ("IPG") Written Direct Statement and dated August 22, 2016 (the "Cowan Report"), as well as revisions and amendments to that report dated August 30, 2016 (the "Amended Cowan Report") and October 13, 2016 (the "Second Amended Cowan Report). Although I routinely employ statistical techniques such as regressions and measures of central tendency during my valuation work for media and communications clients, the focus of this rebuttal testimony is not on the statistical mechanics of Dr. Cowan's analysis. Rather, my focus is to analyze the premises and logic behind Dr. Cowan's analysis in the context of generally accepted appraisal practice and the economics of the media industry, in general, and the cable television industry, specifically. To avoid repetition, my professional background and the analysis in my direct testimony are incorporated by reference.

An updated list of publications and speaking engagements since submission of my Written Direct Testimony in this matter on August 22, 2016 is included in Appendix A. In July of 2017, I was elected to the Board of Directors of the Media Financial Management Association ("MFM"). The MFM is a non-profit professional organization dedicated primarily to providing continuing education on accounting, valuation, compliance, and related matters to managers and media financial executives. According to the MFM, its "1,200 active members represent the top financial, general management, IT, internal audit, human resources, and other media management personnel from major television networks, network affiliates, radio stations, cable programming networks, cable MVPDs, digital, out-of- home and newspaper/print outlets throughout the U.S. and Canada."[1]

I. General Observations Regarding Dr. Cowan's Analysis

Having reviewed the Cowan Report, the Amended Cowan Report, and the Second Amended Cowan Report, I have the following observations:

1. The very premise of Dr. Cowan's analysis is flawed. A fundamental concept in the valuation field relates to comparability. When an asset is compared to another asset, or a transaction is compared to another transaction, it is important that the fundamental characteristics of the assets or transactions indeed be comparable. This common-sense paradigm suggests that one would not use sales of restaurants to benchmark the value of

[1] http://www.mediafinance.org/overview.

television stations, or distressed bankruptcy sales to appraise the value of healthy and solvent businesses. In everyday parlance, this is referred to as avoiding "apples to oranges" comparisons. At the outset, there are two comparability issues that undermine Dr. Cowan's analysis.

2. First, Dr. Cowan purports to calculate the "relative marginal value"[2] of the programming of IPG-represented claimants compared to that of claimants represented by the SDC and the Motion Picture Association of America ("MPAA"). The marginal value of a program (i.e., the incremental benefit of airing an additional unit of a program) is not comparable to the exercise in this case, which is to determine the total relative fair market value of programs that are represented by each group. As such, Dr. Cowan's analysis from the start is at variance with the requirements of the Phase 2 distribution matter.

3. Moreover, Dr. Cowan goes about this by endeavoring to establish a relationship between the number of subscribers (or in the case of satellite, distant subscribers) which he employs as a dependent variable, and the number of broadcasts distantly transmitted for the IPG, SDC, and MPAA claimants as a dependent variable. From a valuation perspective, this approach suffers from multiple deficiencies.

4. First, total subscribers reached by a channel is not an appropriate valuation measure for an individual program or group of programs on that channel because a number of other variables are involved in the "value" of a program or group of programs, such as the number of people who actually elect to view a program or group of programs, how frequently they watch, and the demographic composition of that viewing audience. For a program or

[2] *See* Amended Cowan Report ¶ 9 and throughout; *see also* Cowan Report ¶ 9 and throughout.

group of programs to have value, not only must they be made available to viewers, but a measurable group of potential viewers must also actually decide to watch. Nor is it appropriate to attribute, as Dr. Cowan does, the entire fluctuation in subscribers reached by a channel to a handful of variables, namely, the quantity of IPG, SDC, and MPAA programming. This approach is inappropriate because a plethora of other variables are involved in the subscriber reach of a channel, such as the other categories of programming included in the re-broadcast of the distant signal, other channels included on the same cable system, the size of the cable system, and competing packages of programming offered by other providers. Dr. Cowan's approach is akin to establishing the value of an automobile based upon the value of its radio and its tires (i.e., better tires and radios relate to more valuable cars), but this approach is absurd because the value of the car is also driven by upholstery, engine size, competitive offerings, and a host of other characteristics both internal and external to the car itself.

5. An additional crippling flaw of Dr. Cowan's analysis is that the data he draws upon bears no relationship to a measure of fair market value in the first place. Dr. Cowan discusses fees paid as a potential metric, pointing out that cable providers can decide to take a distantly transmitted signal or leave it. But the fees paid by cable and satellite systems are stipulated by regulatory formulas. Regardless of what minimal analytical value the amount of fees paid might have, he does not even use it. Instead, his regression relies on numbers of subscribers, not fees paid.

6. Finally, Dr. Erkan Erdem has pointed out that Dr. Cowan's regression does not even play a meaningful role in his results, which are almost entirely driven by a simple proportional comparison of the numbers of IPG and SDC claimed broadcasts in a non-random

sample of stations. Number of broadcasts is a measure of volume, not value. It is not even a relevant measure of volume, as the mere fact that a program was broadcast says nothing about the number of people to whom it was distantly retransmitted.

II. Specific Observations Regarding Dr. Cowan's Analysis

In addition to the global concerns described above, there are several specific representations made in Dr. Cowan's report to which I take exception, which are detailed below.

7. I wholeheartedly disagree with Dr. Cowan's assertion that because cable or satellite operators pay a single lump sum fee for an entire distant signal, there is "no indication to the outside world about how a cable or satellite operator values a particular program within the offerings of the station, or even whether the cable and satellite operator considers individual programs in the decision to re-broadcast a station."[3]

8. First, evidence has been presented to the Judges in this matter that cable and satellite operators most certainly <u>do</u> consider the performance of individual programs when making the decision to import a distant signal.[4]

9. Next, Dr. Cowan states that a "CSO is indifferent to viewership of a particular program because since the station can decide to no longer offer the program, can decide to move the program to a different time slot, or make other changes that would impact the offering of the program—the CSO has no input to a programming decision by a station or a set

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3 Amended Cowan Report ¶ 12; *see also* Cowan Report ¶ 12.

4 Written Direct Statement of the Settling Devotional Claimants, Docket Nos. 2012-6 CRB CD 2004-2009 (Phase II) and 2012-7 CRB SD 1999-2009 (Phase II) (August 22, 2016), Written Testimony of Toby Berlin at 6-8 (May 9, 2014) and Oral Testimony of Toby Berlin, Tr. 79:2-86:5 (April 14, 2015).

of stations."[5] This statement does not comport with my experience in the broadcasting and MVPD industries.[6] Television stations tend to modify their schedules in a purposeful and evolutionary manner, such that a recent schedule is a good predictor of future practices. For example, and particularly relevant to the matter in this proceeding, Devotional programming has consistently clustered in similar dayparts (Sunday mornings, for example) for decades. And although a cable and satellite operator may not have direct input into a station's programming decisions, through the use of audience measurements, its subscribers do. This is because measurements of subscriber viewing preferences play strongly in programming decisions, including those to carry distant signals.

10. Additionally, each of the examples Dr. Cowan uses to support his methodology falls short in terms of the comparability standard described above.

11. His example of a pool of loans that comprises many different types of loans[7] falls short because it is founded on a bidding process where a price is reached between buyers and sellers who are fully informed. Such is not the case with the mandatory license fees. Moreover, there is substantial information available about all of the asset types in the pool, and not just the particular assets that the analyst is trying to value. Such granular information is not typically available in the case of re-transmitted distant signals. This fact demonstrates both the apples-to-oranges comparability problem in Dr. Cowan's analysis and why CSOs rely upon audience measurements in making programming decisions.

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5 Amended Cowan Report ¶ 16; *see also* Cowan Report ¶ 16.

6 A Multichannel Video Program Distributor ("MVPD") is industry parlance for a cable, satellite or telecom company that distributes video programming for a fee. They are typically under the jurisdiction of the Copyright Royalty Judges for the purpose of administering distant signal royalties.

7 Amended Cowan Report ¶¶ 18-22; *see also* Cowan Report ¶¶ 18-22.

12. The Fiat Automotive example[8] suffers from the same flaw: even if the model had no other deficiencies (which it does), there is pricing data for each car based upon the manufacturer's strategy, discounting, features, and packages of features. In the case of royalties for carriage of distant signals, no such market driven pricing data is available. Additionally, following on the observation I made above, data in the automotive example includes the full range of features (wheelbase, interior space, trunk space, etc.). Dr. Cowan's analysis is akin to appraising just a few features of a car based upon the number of sales of cars as a whole, without taking into account all of the cars' other features.

13. Dr. Cowan's example of a car rental is perplexing.[9] He states that "I show up at an airport and rent a car. I don't know which car I am going to get. I don't know the type—make and model—of car I'm going to get. The rental car company might know which car I will get, but the rental car company doesn't know which features of the car I may or may not use. . . . Usage of features is immaterial to both of us."[10] But this is not accurate. Rental car agencies offer a selection of cars ranging from economy to luxury, with the price gradated between models. Customers can also often select which features are important to them—for example, air conditioning, power windows, USB ports, and toll tags. In other words, customers may not know the exact make and model of the car they will get, or the exact bundle of features that car will include, but they have a very good idea, and the rental company, based upon the choices made by the customer, has a very good idea of what features they find to be important. In certain cases, particularly at the higher end, customers can select

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8 Ibid. ¶¶ 23-25.

9 Ibid.,¶ 26.

10 Ibid.

specific makes and models. In other words, in contrast to the rigid formula-driven systems for acquiring distant signals, rental car customers have a multitude of choices to pay more for specific options and less for fewer.

XI. Conclusions

The foundations of Dr. Cowan's analysis are flawed from the start in a way that is at variance with standard appraisal practice and the economics of the cable and satellite television industries. As such, the results of Dr. Cowan's analysis make no sense and are irrelevant for the intended purpose of determining the relative fair market value of programming represented by the SDC and IPG.

DECLARATION OF JOHN S. SANDERS

I declare under penalty of perjury that the foregoing testimony is true and correct and of my personal knowledge.

Executed: December 15, 2017

John S. Sanders

<u>Appendix A</u>

Qualifications of John S. Sanders

John S. Sanders

Additional Speaking Engagements

45. Media Financial Management Association, Moderator, Panel on Alliance for Audited Media measurement of print and digital audiences, Denver, Colorado, May 24, 2016.

46. Media Financial Management Association, Moderator, Alliance for Audited Media Panel, Discussion of measurement of print and digital media consumption, Orlando, Florida, May 22, 2017.

47. Media Financial Management Association, Moderator and Presenter on Newspaper Mergers, Acquisitions and Valuation Panel, Presentation on Valuation Trends and Merger Activity, Orlando, Florida, May 22, 2017.

48. Enterprise Wireless Alliance, Wireless Leadership Summit, Speaker, Presentation entitled "What's it Worth? Valuing Your Business," Denver, Colorado, October 12, 2017.

49. American Society of Appraisers, Washington, DC Chapter Meeting, Speaker, Presentation entitled, "The Great Spectrum Auction of 2017," Bethesda, Maryland, November 14, 2017.

John S. Sanders

Additional Publications

25. "TV's Tech Revolution - The television business will never be the same with the advent of two major changes: the spectrum repack and the new ATSC 3.0 Standard," *The Financial Manager*, September/October, 2016. With Andrew D. Bolton.

26. "A Post-Auction Rainbow - While TV broadcasters' spectrum auction results were underwhelming, new market conditions may provide favorable opportunities," *The Financial Manager*, May/June 2017.

27. "TV's Optical Illusion," *The Financial Manager*, January/February 2018.